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6 UNITED STATES DISTRICT COURT
7 DISTRICT OF NEVADA

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9 SERVER TECHNOLOGY, INC.,

10 Plaintiff,

11 v.

12 SCHNEIDER ELECTRIC IT CORPORATION,
13 f.k.a. AMERICAN POWER CONVERSION
14 CORPORATION,

15 Defendant.
16

Case No. 3:06-cv-0698-LRH-(VPC)

ORDER

17 Before the court is defendant Schneider Electric IT Corporation's ("Schneider"),
18 formerly known as American Power Conversion Corporation ("APC"), renewed motion for
19 summary judgment on the issue of patent obviousness under 35 U.S.C. § 103. ECF No. 718.
20 Plaintiff Server Technology, Inc. ("STI") filed an opposition to the motion (ECF No. 723) to
21 which Schneider replied (ECF No. 729).

22 **I. Facts and Procedural Background**

23 Plaintiff STI manufactures intelligent electrical power distribution devices. Like STI,
24 defendant Schneider also manufactures intelligent electrical power distribution devices.

25 In 2006, STI initiated the underlying patent infringement action against Schneider, then
26 known as APC, alleging that certain APC product designs (the AP7900 and AP8900 product
27 lines) infringed several of STI's patents, including United States Patents nos. 7,043,543
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1 (“the ‘543 patent”)¹ and 7,702,771² (“the ‘771 patent”). ECF No. 1. STI’s patents-in-suit relate to
2 intelligent power distribution units (“PDUs”). PDUs resemble in look and function the electrical
3 plugstrips/power strips ubiquitous in homes and offices that are used to distribute power from a
4 single electrical outlet located in a wall or floor to a multitude of connected electrical appliances
5 (like computers, telephones, printers, televisions, and video game systems). Intelligent PDUs,
6 however, contain “intelligent” design features not present in normal consumer plugstrips. For
7 example, the PDUs at issue in this action contain “switched” outlets, meaning that each outlet or
8 group of outlets on the PDU can be turned on or off remotely over a network. Further, these
9 PDUs continuously monitor electrical information (including voltage, current, and power used
10 by the PDU) and convey this information to the end-user either remotely over a computer
11 network or locally via a display built into the PDU.

12 The intelligent PDUs designed and manufactured by STI and Schneider/APC are
13 primarily used in large scale applications such as commercial data centers; warehouse-like
14 facilities that maintain and operate networked computer servers.³ Each data center is filled with
15 rows of equipment racks on which networked computer servers are housed. Because the
16 equipment racks are a standard size, data centers profit by maximizing the number of servers that
17 can be powered in each rack: the more servers that can be powered per rack, the more powerful
18 and profitable the data center. Thus, data centers require a constant and reliable power source in
19 order to provide the necessary power for the associated computer servers. Data centers meet
20 these power management needs with intelligent PDUs like those designed by STI and
21 Schneider/APC.

22 However, a single PDU can only handle a limited number of connected servers/devices
23 before the power draw causes the PDU, and all connected devices, to fail. As with consumer
24 plugstrips, if the devices plugged into an intelligent PDU collectively draw more current/power

25 ¹ A copy of the ‘543 patent is attached as Exhibit 2 to the declaration of James Hartley filed in support of STI’s
26 opposition to the present motion. ECF No. 724, Ex. 2.

27 ² A copy of the ‘771 patent is attached as Exhibit 3 to the declaration of James Hartley filed in support of STI’s
opposition to the present motion. ECF No. 724, Ex. 3. The ‘771 patent is a continuation of the ‘543 patent.

28 ³ Networked computer servers housed in large commercial data centers form the backbone of key software and
computer systems including data storage systems (like Apple iCloud, Microsoft OneNote, and Dropbox);
telecommunication systems; industrial and commercial databases and inventory systems; and websites.

1 than the PDU can handle, a current “overload” occurs shutting down every connected device. To
2 warn users of an impending current overload, PDUs have long displayed information about the
3 amount of current being drawn by the PDU. Some early PDUs displayed current information
4 using a single light emitting diode (“LED”) that flashed when the PDU was approaching its
5 current threshold. Other PDU designs, including early designs by APC, used an array of colored
6 lights (green, orange, and red) to indicate current level. In contrast, STI’s patented designs
7 claimed in Claim 15 of the ‘543 patent and Claim 15 of the ‘771 patent are for intelligent PDUs
8 that display current information using a digital display: that is, a display that conveys the amount
9 of current being drawn by the PDU in easily readable numerical digits. *See* ECF No. 724, Ex. 2
10 (‘543 patent) at Col. 12:21-50; Ex. 3 (‘771 patent) at Col. 12:19-57.

11 Between May 12 and May 27, 2015, a jury trial was held on STI’s claims that
12 Schneider/APC’s challenged product lines infringed Claim 15 of both the ‘543 and ‘771 patent.
13 On May 29, 2014, the jury returned a verdict in favor of STI finding that the product lines
14 infringed STI’s patents. ECF No. 590. In response, Schneider appealed the jury verdict to the
15 Federal Circuit. ECF No. 673. On September 23, 2016, the Federal Circuit held that this court’s
16 claim construction of the term “plugstrip” as used in the patents-in-suit was erroneous and issued
17 an order partially reversing the jury verdict and remanding the action to this court.⁴ *See Server*
18 *Tech., Inc. v. Am. Power Conversion Corp.*, 657 Fed. Appx. 1030, 1033-34 (Fed. Cir. 2016).
19 Thereafter, Schneider filed the present renewed motion for summary judgment that Claim 15 of
20 both STI’s ‘543 and ‘771 patents are invalid as obvious under 35 U.S.C. § 103. ECF No. 718.

21 **II. Legal Standard**

22 Summary judgment is appropriate only when the pleadings, depositions, answers to
23 interrogatories, affidavits, declarations, party stipulations, admissions, and other relevant
24 materials in the record fairly establish that “there is no genuine dispute as to any material fact
25 and the movant is entitled to judgment as a matter of law.” FED. R. CIV. P. 56(a). In assessing a
26 motion for summary judgment, the evidence, together with all inferences that can reasonably be
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28 ⁴ For a more thorough discussion of the history of this action, including the limited remand by the Federal Circuit, see the court’s February 23, 2017 order (ECF No. 691).

1 drawn therefrom, must be read in the light most favorable to the party opposing the motion.

2 *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986); *County of*
3 *Tuolumne v. Sonora Cmty. Hosp.*, 236 F.3d 1148, 1154 (9th Cir. 2001).

4 The moving party bears the initial burden of informing the court of the basis for its
5 motion, along with all evidence showing the absence of any genuine dispute of material fact.
6 *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). On those issues for which it bears the burden
7 of proof, the moving party must make a showing that is “sufficient for the court to hold that no
8 reasonable trier of fact could find other than for the moving party.” *Calderone v. United States*,
9 799 F.2d 254, 259 (6th Cir. 1986); *see also Idema v. Dreamworks, Inc.*, 162 F. Supp. 2d 1129,
10 1141 (C.D. Cal. 2001).

11 To successfully rebut a motion for summary judgment, the non-moving party must point
12 to facts supported by the record which demonstrate a genuine dispute or issue of material fact.
13 *Reese v. Jefferson Sch. Dist. No. 14J*, 208 F.3d 736 (9th Cir. 2000). A “material fact” is a fact
14 “that might affect the outcome of the suit under the governing law.” *Anderson v. Liberty Lobby,*
15 *Inc.*, 477 U.S. 242, 248 (1986). Where reasonable minds could differ on the material facts at
16 issue, summary judgment is not appropriate. *See v. Durang*, 711 F.2d 141, 143 (9th Cir. 1983). A
17 dispute regarding a material fact is considered genuine “if the evidence is such that a reasonable
18 jury could return a verdict for the nonmoving party.” *Liberty Lobby*, 477 U.S. at 248. The mere
19 existence of a scintilla of evidence in support of the party’s position is insufficient to establish a
20 genuine dispute; there must be evidence on which a jury could reasonably find for the party. *See*
21 *Id.* at 252.

22 **III. Discussion**

23 In its renewed motion for summary judgment, Schneider seeks an order from the court
24 that asserted Claim 15 of the ‘543 patent and asserted Claim 15 of the ‘771 patent are invalid as
25 obvious under 35 U.S.C. § 103. ECF No. 718. As addressed below, the court agrees and finds
26 that both Claim 15 of the ‘543 patent and Claim 15 of the ‘771 patent are invalid as obvious
27 under Section 103 because a person of ordinary skill in the art would have had a reason to
28 combine the identified prior art to arrive at STI’s patented PDU design in order to alleviate

1 known problems in the art including alerting an end-user to a possible current overload
2 condition.

3 **A. Obviousness Standard**

4 An issued patent is presumed valid by statute. 35 U.S.C. § 282. However, a patent may be
5 held invalid as a matter of law if it is obvious in light of the prior art. 35 U.S.C. § 103.
6 Specifically, under Section 103 of the Patent Act, a patent may be deemed invalid “if the
7 differences between the subject matter sought to be patented and the prior art are such that the
8 subject matter as a whole would have been obvious at the time the invention was made to a
9 person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a).
10 Put more simply, a patented invention is obvious if a person of ordinary skill in the art would
11 have had a reason to combine the particular elements or technologies already known in the art in
12 the way or manner the claimed invention does. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418
13 (2007).

14 Although the ultimate determination of obviousness under Section 103 is a question of
15 law, it is based on several underlying factual findings, including: (1) the scope of the claimed
16 invention; (2) the level of ordinary skill in the pertinent art; (3) the scope and content of the prior
17 art; (4) the differences between the claimed invention and the prior art; (5) the existence of a
18 reason to combine the prior art references; and (6) evidence of secondary considerations such as
19 commercial success, long-felt need, and copying by others. *Graham v. John Deere Co.*, 383 U.S.
20 1, 17-18 (1966); *In re Kubin*, 561 F.3d 1351, 1355 (Fed. Cir. 2009). A defendant proffering the
21 affirmative defense of obviousness under Section 103 bears the burden to prove that the patented
22 claim is obvious by clear and convincing evidence. *Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d
23 955, 962 (Fed. Cir. 2001); *Finnigan Corp. v. Int’l Trade Comm’n*, 180 F.3d 1354, 1365 (Fed.
24 Cir. 1999). For purposes of summary judgment, the evidence, when viewed in the light most
25 favorable to the non-moving party, must support particular findings “as to the reason the skilled
26 artisan, with no knowledge of the claimed invention, would have selected [the identified prior
27 art] for combination in the manner claimed [in the patented design].” *In re Kotzab*, 217 F.3d
28 1365, 1371 (Fed. Cir. 2000).

B. Claim Language

Independent Claim 15 of the '543 patent discloses:

An electrical power distribution plugstrip connectable to one or more electrical loads in a vertical electrical equipment rack, the electrical power distribution plugstrip comprising in combination:

A. a vertical strip enclosure having a thickness, and a length longer than a width of the enclosure;

B. a power input penetrating said vertical strip enclosure;

C. a plurality of power outputs disposed along an area on a face of said length of the strip enclosure, each among the plurality of power outputs being connectable to a corresponding one of said one or more electrical loads;

D. a plurality of power control relays disposed in said vertical strip enclosure, each among said plurality of power control relays being connected to said power input and to one or more corresponding power outputs among said plurality of power outputs;

E. a digital current information display disposed on another area of said vertical strip enclosure and adjacent to said plurality of outputs in current-determining communication with at least one among said power input and said power outputs; and

F. a plugstrip current reporting system (i) associated with the vertical strip enclosure (ii) in power information determining communication with at least one among said power input and said plurality of power outputs, and (iii) communicably connectable with a distal current reporting system through a communications network external to the electrical power distribution plugstrip.

ECF No. 724, Ex. 2 ('543 patent) at Col. 12:21-50.

The plain language of Claim 15 discloses a design for a power distribution plugstrip with the following claimed features: (a) a vertical strip enclosure, meaning that the PDU is oriented vertically in an equipment rack rather than horizontally; (b) a power input, meaning that there is a power cord that runs power from an outlet into the plugstrip housing which is then distributed to the various outlets on the plugstrip; (c) a number of power outlets (i.e. more than one) that electrical appliances like computer servers can be plugged into; (d) remotely controllable relays associated with the power outlets, meaning that there is a way to remotely switch on or off an individual outlet, or a group of outlets, through the use of a computer (or other) network; (e) a digital current-related display, meaning a digital display built into the plugstrip housing that displays, in numerical digits, the level of real-time current being drawn by the PDU; and (f) a current reporting system, meaning a system which allows the plugstrip to report electrical

1 information to a user remotely through a computer (or other) network. *Id.* The parties do not
2 contest the scope of Claim 15 of the ‘543 patent or the specific limitations identified in the
3 claimed PDU design. *See* ECF Nos. 718, 723. As such, in order for Claim 15 of the ‘543 patent
4 to be obvious under Section 103, Schneider’s identified prior art references must collectively
5 disclose or claim all of the design features identified in Claim 15 above (claim limitations (a)
6 through (f)). *See KSR*, 550 U.S. at 418-19.

7 Claim 15 of the ‘771 patent is virtually identical to Claim 15 of the ‘543 patent except
8 that Claim 15 of the ‘771 patent is broader in scope because it is not limited to a “vertical”
9 device. ECF No. 724, Ex. 3 (‘771 patent) at Col. 12:19-57. Because Claim 15 of the ‘771 patent
10 is broader than Claim 15 of the ‘543 patent, a finding that Claim 15 of the ‘543 patent is, or is
11 not, obvious necessarily means that Claim 15 of the ‘771 patent is likewise obvious or not
12 obvious. Thus, for purposes of this motion, the court analyzes Schneider’s obviousness challenge
13 with respect to Claim 15 of the ‘543 patent only.

14 **C. Person of Ordinary Skill in the Art**

15 A person of ordinary skill in the art is a person presumed to think “along the line of
16 conventional wisdom in the art and is not one who undertakes to innovate, whether by patient,
17 and often expensive, systematic research or by extraordinary insights.” *Standard Oil Co. v. Am.*
18 *Cyanamid Co.*, 774 F.2d 448, 454 (Fed. Cir. 1985). For purposes of this motion, the parties agree
19 that a person of ordinary skill in the art is one who would have an electrical or computer
20 engineering degree (or the equivalent industry experience) and at least one to three years of
21 experience designing power distribution devices.

22 **D. Identified Prior Art**

23 In its motion, Schneider identifies four pieces of prior art that it argues were in existence
24 prior to the filing of STI’s ‘543 patent and which, when combined, establish that STI’s patents-
25 in-suits are invalid as obvious: (1) the MasterSwitch VM (“MSVM”), a PDU manufactured by
26 APC; (2) United States Patent no. 5,650,771 (“the Lee patent”); (3) United States Patent no.
27 6,476,729 (“the Liu patent”); and (4) United States Patent no. 6,086,397 (“the Chapman patent”).
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1 See ECF No. 718. The court shall address the disclosures, design features, and teachings of each
2 prior art reference below.

3 **1. MSVM⁵**

4 The MSVM, a PDU designed and manufactured by APC, was first advertised and sold in
5 1999. As such, its design pre-dates the August 15, 2001 filing date of the ‘543 patent application
6 by two years.

7 Like STI’s claimed invention, the MSVM was a vertical, switched PDU with remote
8 current reporting capabilities. In particular, the MSVM design specifications classify it as a
9 “vertically-mounted, stand-alone, network-manageable power distribution unit (PDU) designed
10 to accommodate a total of 16 outlets.” ECF No. 718, Ex. 4 (Installation and Quick Start Manual),
11 at 6. Eight of the outlets on the PDU were individually-managed or “switched” outlets, while
12 eight outlets were always “on.” *Id.* Further, the MSVM allowed for remote managing of its
13 switched outlets through a network interface and contained both a current sensing component
14 and a current reporting system. *See* ECF No. 718, Ex. 3 (User Guide) at 17 (“Current Sensing –
15 Each MasterSwitch VM unit is equipped with a current sensor that measures the total current
16 being used by devices connected to the unit.”); at 18 (“Using a Web browser or Telnet, you can
17 remotely manage MasterSwitch VM and its outlet properties.”). The MSVM also had a “current
18 information display” located directly on the PDU which was in direct communication with the
19 current sensor so that the amount of current being drawn by the MSVM at any one time was
20 communicated to the display. *Id.* at 16. But unlike claim limitation (e) of Claim 15 of the ‘543
21 patent, the MSVM’s “current information display” was not a numerical digital display. Instead,
22 the MSVM display conveyed current information via a series of colored LEDs: solid green,
23 flashing green, or red depending on the amount of current being drawn by the MSVM at the
24 time.⁶ *Id.*

25 _____
26 ⁵ Both the “User Guide” and “Installation and Quick Start Manual,” of the MSVM provide a full explanation of the
MSVM’s technical and design features, and are attached as Exhibits 3 & 4 to Schneider’s renewed motion for summary
judgment. *See* ECF No. 718, Ex. 3 (User Guide); Ex. 4 (Installation and Quick Start Manual).

27 ⁶ A solid green LED indicated that the MSVM was operating within normal current input conditions. ECF No. 718,
Ex. 3 at 6. The LED would then flash green to indicate that the MSVM was approaching maximum current input. *Id.*
28 Finally, the LED would show a solid red color when the MSVM had exceeded its maximum current threshold and
was in an overload condition. *Id.*

1 Based on these specifically disclosed and claimed design features, the court finds, and
2 STI concedes in its opposition, that the MSVM discloses all design elements claimed and
3 identified in Claim 15 of the ‘543 patent except for the “digital” display claimed in limitation (e).
4 All other claimed design features, including (a) a vertical strip enclosure which contains (b) a
5 power input, (c) a number of power outlets which are (d) remotely controllable through relays,
6 and (f) a current reporting system, are present in the MSVM. Further, as addressed above, the
7 MSVM even contains a “current-related display” to alert an end-user to the possibility of an
8 overload condition although it is undisputed that the MSVM’s “current-related display” is not a
9 digital display capable of showing numerical digits. Thus, the sole difference between the
10 MSVM and Claim 15 of the ‘543 patent, for the purpose of the court’s obviousness inquiry, is
11 the digital display of claim limitation (e).

12 **2. The Lee Patent⁷**

13 The Lee patent, entitled “Electrical Socket with Monitoring Unit for Monitoring
14 Operating Conditions,” was filed on April 25, 1995, more than six years before the ‘543 patent.
15 See ECF No. 718, Ex. 6. The Lee patent, which relates to an “electrical socket with a monitoring
16 unit,” discloses both a monitoring unit (which monitors operating conditions of the electrical
17 socket such as voltage, line current, and power) and a display unit (which displays socket
18 operating conditions to a user) within an electrical socket housing. *Id.* at Col. 1:12-13. Much like
19 the monitoring unit disclosed in STI’s ‘543 patent, the monitoring unit disclosed in the Lee
20 patent monitors and determines the operating conditions of the electrical outlet including line
21 current. *Id.* at Col. 1:53-59 (“The operating conditions monitored by the monitoring unit include
22 the ambient temperature, the line voltage and the line current.”). Further, the display unit claimed
23 in the Lee patent is a digital display capable of showing the actual *value* of the various operating
24 parameters of the electrical socket/outlet through the use of a built-in liquid crystal display
25 (“LCD”). *Id.* at Col. 3:45-49 (“The display unit **26**, which is preferably a liquid crystal display
26 (LCD), is connected electrically to the central processing unit . . . so as to show the *value* of the
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28 ⁷ A copy of the Lee patent is attached as Exhibit 6 to Schneider’s renewed motion for summary judgment. See ECF No. 718, Ex. 6.

1 line voltage, the line current, the ambient temperature or the line power thereon.”) (emphasis
2 added). Based on these patent disclosures, the court finds that the Lee patent claims a digital
3 display capable of showing the numerical value of line current designed for use in an electrical
4 outlet housing.

5 **3. The Liu Patent⁸**

6 The Liu patent, entitled “Power Monitoring Module with Display Unit for Electrical
7 Power Source Device,” was filed on August 22, 2000, almost a full year before the filing of the
8 ‘543 patent. Like the Lee patent, the Liu patent relates to “an electrical power monitoring module
9 with a display unit capable of displaying various electrical parameters.” ECF No. 718, Ex. 7 at
10 Col. 1:10-12. And also like the Lee patent, the Liu patent specifically claims both a monitoring
11 unit and a digital display unit capable of showing the numerical value of various electrical
12 parameters detected by the unit. *Id.* at Col. 1:43-46 (“The power monitoring module is capable of
13 detecting various electrical parameters of the electric appliances plugged on the power source
14 device and the power source.”); at Col. 1:47-53 (“The other object of the present invention is to
15 provide a power monitoring module with a display unit capable of displaying relevant electrical
16 parameters of the power source device and the electrical appliances plugged on the power source
17 device. The electrical parameters include voltage value, *current value*, watt, kilowatt-hour,
18 apparent power value, power factor, frequency, and so on.”) (emphasis added). Thus, similar to
19 the Lee patent, the Liu patent determines, monitors, and displays the same electrical operating
20 conditions as the claimed PDU in the ‘543 patent. However, the digital display unit claimed in
21 the Liu patent is not limited to the Lee patent’s LCD display. Instead, the Liu patent claims both
22 an LCD digital display and an LED digital display so the Liu patent’s claimed design is broader
23 in scope and application than the design in Lee. *Id.* at Col. 2:56-59 (“The display unit includes an
24 insulated layer **22**, a light emitting device **23**, a *LCD or LED indicating unit 24*, and a conductive
25 cable **25**, capable of displaying various electrical parameters of the power source device.”)
26 (emphasis added). Further, the Liu patent specifically claims a modular display unit capable of
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28 ⁸ A copy of the Liu patent is attached as Exhibit 7 to Schneider’s renewed motion for summary judgment. *See*
ECF No. 718, Ex. 7.

1 being fitted into other electrical power distribution devices like a power strip. *Id.* at Col. 1:40-43
2 (“[I]t is a primary object of the present invention to provide a power monitoring module for an
3 electrical power source device, such as an electrical power strip[.]”). Based on these specific
4 patent disclosures, the court finds that the Liu patent claims a modular digital display unit
5 capable of displaying the numerical value of current being drawn by a power distribution device.

6 **4. The Chapman Patent⁹**

7 The Chapman patent, entitled “High Reliability Raised Floor Power Strip,” was filed on
8 April 27, 1998, a full three years before the ‘543 patent. The Chapman patent relates to a power
9 strip that has both a “permanently attached current sensor” and a “surface mounted liquid crystal
10 display” with a number of electrical outlets. ECF No. 718, Ex. 8 at Col. 6:57-60. Although the
11 power strip claimed in the Chapman patent is not as technically advanced and does not claim as
12 many design features as the plugstrip claimed in Claim 15 of STI’s ‘543 patent, the LCD claimed
13 in the Chapman patent is designed to display “the current passing through the power strip” which
14 “may be readily and continuously monitored without utilizing any special tools.” *Id.* at Col. 6:60-
15 63. Moreover, the Chapman patent specifically claims a digital display capable of showing “real-
16 time current monitoring.” *Id.* at Col. 6:64-65. Based on these specific disclosures, the court finds
17 that the Chapman patent claims a digital display capable of showing the numerical value of
18 current running through a power strip.

19 **E. Combination of the Prior Art**

20 In order for a patented design to be obvious as a matter of law, the combination of the
21 identified prior art references must include all the claimed design features and limitations of the
22 patented design. *See KRS*, 550 U.S. at 418-19. If a single limitation is not met by the
23 combination of prior art, then the patented design is not obvious. *Id.*

24 As addressed above, the court has found that the MSVM contains all claimed features
25 and limitations of Claim 15 of the ‘543 patent except for the “digital display” claimed in
26 limitation (e). *See Supra* Section III(D)(1). Thus, for the court to find as a matter of law that
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28 ⁹ A copy of the Chapman patent is attached as Exhibit 8 to Schneider’s renewed motion for summary judgment. *See* ECF No. 718, Ex. 8.

1 Claim 15 of the '543 patent is obvious under Section 103, the disclosure of a digital display
2 capable of displaying the numerical value of real-time current in a plugstrip must be found in at
3 least one of either the Lee, Liu, or Chapman patents. Reviewing these three prior art references,
4 the court finds that all three disclose and claim the use of a "digital display" to show the value of
5 real-time current passing through a power distribution device (either a single outlet or a power
6 strip) as claimed in limitation (e) of Claim 15 of the '543 patent. *See Supra* Sections III(D)(2) -
7 (4). Therefore, the court finds that combining the identified prior art references reaches the
8 entirety of the design claimed in Claim 15 of the '543 patent.

9 In opposition STI contends that although the Lee, Liu, and Chapman patents claim digital
10 displays for displaying the value of current running through an electrical outlet or power strip,
11 these three prior art references are outside the field of endeavor of the '543 patent, and thus,
12 cannot be used to invalidate the '543 patent. *See* ECF No. 723. Specifically, STI argues that the
13 Lee, Liu, and Chapman patents relate to the field of consumer power distribution devices for
14 ordinary users and "electrical hobbyists," rather than the technologically advanced field of
15 intelligent commercial power distribution devices contemplated by the '543 patent. Therefore,
16 STI argues that these three patents fall outside the relevant field of endeavor for the '543 patent.
17 The court disagrees.

18 A prior art reference may be used to invalidate a patent as part of an obviousness
19 combination if (1) it is from the "same field of endeavor" as the patent-in-suit, or (2) "if the
20 reference is not within the field of the inventor's endeavor, . . . the reference . . . is reasonably
21 pertinent to the particular problem with which the inventor is involved." *Unwired Planet, LLC v.*
22 *Google Inc.*, 841 F.3d 995, 1000 (Fed. Cir. 2016) (citing *In re Clay*, 966 F.2d 656, 658-59 (Fed.
23 Cir. 1992)). "The field of endeavor of a patent is not limited to the specific point of novelty, the
24 narrowest possible conception of the field, or the particular focus within a given field." *Id.* at
25 1001. Further, guidance by the Supreme Court in *KSR* directs a court to "construe the scope of
26 analogous art broadly, stating that 'familiar items may have obvious uses beyond their primary
27 purposes, and a person of ordinary skill often will be able to fit the teachings of multiple patents
28 together like pieces of a puzzle.'" *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1238 (Fed. Cir.

1 2010) (quoting *KSR*, 550 U.S. at 402). Thus, in determining whether a prior art reference is
2 within the same field of endeavor, a court broadly construes the appropriate field and is not
3 limited solely to the particular field in which the inventor is involved or the field specifically
4 claimed in the patent-in-suit. *Unwired Planet*, 841 F.3d at 1000.

5 The court has reviewed the documents and pleadings on file in this manner and finds that
6 the appropriate field of endeavor for the ‘543 patent is the field of endeavor related to general
7 electrical power distribution devices rather than STI’s more narrow field of “intelligent
8 commercial PDUs.” The court’s broad construction of the relevant field of endeavor is consistent
9 with the plain language of STI’s patents-in-suit. For example, the ‘543 patent specifically states
10 that the field of the invention “relates generally to remote power management systems, and more
11 particularly to electrical power distribution devices.” ECF No. 724, Ex. 2 at Col. 1:14-18.
12 Similarly, the field of invention identified in the ‘771 patent is the technological field which
13 “relates generally to power management systems and, more particularly, to electrical power
14 distribution devices and methods.” ECF No. 724, Ex. 3 at Col. 1:33-36. Further, there is no
15 language in either of STI’s patents-in-suit to support STI’s narrow field of endeavor and STI has
16 not presented any evidence which would support such a narrow construction. Thus, construing
17 the field of endeavor broadly as required under *KSR* and consistent with STI’s own language
18 identifying the field of invention for the patents-in-suit, the court finds that the field of endeavor
19 covered by STI’s patents-in-suit is a field of endeavor related to electrical power distribution
20 devices for power management systems.

21 This field of endeavor clearly includes the Lee, Liu, and Chapman patents. The Lee
22 patent’s design is “an electrical socket for connecting electrically an electrical appliance to a line
23 power source, more particularly to an electrical socket with a monitoring unit for monitoring
24 operating conditions of the electrical socket.” ECF No. 718, Ex. 6 at Col. 1:7-13. Similarly, the
25 Liu patent specifically “relates to a power monitoring module for a power source device, and
26 more particularly to an electrical power monitoring module with a display unit capable of
27 displaying various, electrical parameters of an electric appliance plugged on the power source
28 device.” ECF No. 718, Ex. 7 at Col. 1:6-12. Finally, the Chapman patent discloses “a power strip

1 specifically designed for the mass computer work station environment, but adaptable for other
2 uses including telecommunications equipment racks, electronic equipment racks, and any
3 situation wherein multiple electronic devices may be connected to a common electrical circuit.”
4 ECF No. 718, Ex. 8 at Col. 4:31-37. By their plain language, these patents all relate to designs
5 for a digital display used on an electrical power distribution device in order to show the value of
6 real-time current running through that device. Therefore, the court finds that the Lee, Liu, and
7 Chapman patents fall within the relevant field of endeavor of the ‘543 patent.

8 Additionally, even if the prior art digital displays of the Lee, Liu, and Chapman patents
9 were not within the same field of endeavor as the ‘543 patent, these patents are nonetheless
10 “reasonably pertinent” to the problem that the STI inventors were trying to solve with the
11 claimed digital display - that of providing real-time numerical current information to an end-user
12 to help prevent a current overload condition - and thus, are relevant to the court’s obviousness
13 inquiry. *See Wyers*, 616 F.3d at 1238. As identified in STI’s patents-in-suit, one of the issues that
14 the inventors were trying to solve with the addition of a digital display was to provide real-time
15 current information to an end-user to alleviate current-related problems in the PDU. *See, e.g.*,
16 ECF No. 724, Ex. 2 (‘543 patent) at Col. 3:16-22 (“The total input current display **104** can be
17 used to advantage by a technician when installing or troubleshooting a RETMA equipment rack
18 by watching how much current change is observed when each network appliance is plugged in
19 and turned on. Unusually high or low currents can indicate particular kinds of faults to
20 experience technicians.”). Here, all three patents sought to overcome similar issues related to
21 providing end-users with real-time current information so as to alert an end-user to possible
22 current-related problems in the electrical device. *See* ECF No. 718, Ex. 6 (“the Lee patent”) at
23 Col. 1:42-47 (“Therefore, the object of the present invention is to provide an electrical socket
24 with a monitoring unit that is capable of monitoring operating conditions of the electrical socket
25 and that can be used to alert the user in the event that a preset overload condition has been
26 detected to help avert actual occurrence of an overload.”); Ex. 7 (“the Liu patent”) at Col. 1:34-
27 38 (“Thus, it is desirable to provide an improved power source device with a display unit which
28 is capable of indicating various electrical parameters of both the electric appliance electrically

1 connected to the power source device and the power source.”); Ex. 8 (“the Chapman patent”) at
2 Col. 4:7-10 (“Another problem frequently encountered when power strips are utilized in
3 computer workstation environments, is the overloading of the circuit due to additional equipment
4 being plugged into the power strip.”). Thus, the court finds that these patents are also
5 “reasonably pertinent” to one of the problems that STI’s inventors sought to solve with the use of
6 a digital display. Therefore, these three patents fall within the field of endeavor of STI’s patents-
7 in-suit and are appropriately considered in Schneider’s obviousness challenge.

8 **F. Reason to Combine**

9 As the court has found that STI’s ‘543 patent is met by a combination of design elements
10 already known in the prior art, the court’s inquiry now turns to whether there was an identifiable
11 reason to combine these various design elements to reach the patented design. This is because the
12 mere fact that prior art references *could* be combined to reach the patented design does not
13 automatically render the resultant combination obvious. *In re Mills*, 916 F.2d 680, 682 (Fed. Cir.
14 1990). Rather, there must have existed a reason to combine the prior art references in such a
15 manner as to reach the patented design at the time of the invention. *Id.* Thus, the court must
16 determine whether there was a motivation or apparent reason for a person of ordinary skill in the
17 art in 2001 to combine a digital display like those disclosed in the Lee, Liu, and Chapman
18 patents with a vertical, switched PDU like the MSVM, and thereby reach the design claimed in
19 Claim 15 of the ‘543 patent. *See Soft Gel Techs., Inc. v. Jarrow Formulas, Inc.*, 864 F.3d 1334,
20 1340 (Fed. Cir. 2017) (“An obviousness determination also requires a person of skill in the art at
21 the time of the invention to have had ‘an apparent reason to combine the known elements in the
22 fashion claimed by the patent at issue.”); *see also Wyers*, 616 F.3d at 1238 (“The second
23 question for our consideration is whether there was a motivation to combine the sleeve with the
24 prior art barbell locks[.]”).

25 This “reason to combine” can be shown by identifying some teaching, suggestion, or
26 motivation in the prior art to combine or modify the art in the manner identified in the patent
27 claims. *KSR*, 550 U.S. at 418-19; *see also Ruix v. A.B. Chance Co.*, 234 F.3d 654, 665 (Fed. Cir.
28 2000) (stating that the court should look to the prior art references themselves to see if the

1 references provide a “reason, suggestion, or motivation to combine” the relevant design features
2 to solve a particular problem known in the art). Where a prior art reference presents an express
3 suggestion to combine the reference in a particular way or with another design, or teaches the use
4 of the design in a way similar to that of the patented design, then there exists an apparent
5 motivation for a person of ordinary skill in the art. *In re Kotzab*, 217 F.3d at 1370. In such a case,
6 a patentee like STI cannot defeat summary judgment by quibbling over the reason that the prior
7 art reference discloses such a suggestion. Further, an explicit suggestion to combine elements
8 from the prior art establishes a reason to combine, even if there is evidence teaching away from
9 that combination. *Enova Tech. Corp. v. Seagate Tech. (US) Holdings Inc.*, 706 Fed.Appx. 987,
10 993 (Fed. Cir. Sept. 6, 2017) (“[W]e have held that disclosures in a reference that might be read
11 to teach away from combining two references did not overcome ‘the express teachings’ of the
12 reference suggesting combinability.”). In contrast, an invention will not be held obvious “where
13 vague prior art does not guide an inventor toward a particular solution” for a known problem.
14 *Bayer Schering Pharma AG v. Barr Labs., Inc.*, 575 F.3d 1341, 1347 (Fed. Cir. 2009).

15 Since the Supreme Court’s decision in *KSR*, a district court conducting an obviousness
16 inquiry is instructed to “take a more ‘expansive and flexible approach’ in determining whether a
17 patented invention was obvious at the time it was made.” *Wyers*, 616 F.3d at 1238 (quoting *KSR*,
18 550 U.S. at 415). In particular, the Supreme Court has emphasized the role of the court’s
19 “common sense” in determining whether a patent is obvious as “[r]igid preventative rules that
20 deny factfinders recourse to common sense . . . are neither necessary under our case law nor
21 consistent with it.” *KSR*, 550 U.S. at 421; *see also Perfect Web Techs., Inc.*, 587 F.3d at 1330
22 (“in appropriate cases, the ultimate inference as to the existence of a motivation to combine
23 references may boil down to a question of “common sense[.]”); *Wyers*, 616 F.3d at 1239 (“[T]he
24 legal determination of obviousness may include recourse to logic, judgment, and common sense,
25 in lieu of expert testimony.”). The question of whether there was a motivation to combine
26 identified prior art references is appropriately addressed on summary judgment. *See KSR*, 550
27 U.S. at 427; *see also Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1330 (Fed. Cir.

2009) (stating that the determination of whether there is a motivation to combine is “appropriate for resolution on summary judgment.”).

In its motion, Schneider argues that a person of ordinary skill in the art back in 2001 would have had a reason to combine the digital displays claimed in the Lee, Liu, and Chapman patents with a switched, vertical PDU like the MSVM in order to solve the known problem of alerting an end-user to a possible current overload condition in the PDU. *See* ECF No. 718. As addressed below, the court agrees.

Initially, the court notes that both parties agree that during the relevant time period, those skilled in the art were well aware of the problem of current overloads in PDUs. In fact, it is undisputed that alerting an end-user that they were close to, or had triggered, an overload condition on the PDU was of critical importance to both PDU designers and end-users. Thus, the court must determine whether a digital display was a known solution to the current overload problem. Reviewing the disclosures and claims of the Lee, Liu, and Chapman patents, the court finds that all three digital display prior art references specifically teach the use of a digital display capable of displaying real-time current value in order to alert an end-user to a possible current overload condition in a power distribution device. For example, both the Lee and Chapman patents recognize that current overloads were a known problem in power distribution devices prior to 2001. *See* ECF No. 718, Ex. 6 at Col. 1:28-38 (“Short circuiting also arises when electrical cables are used improperly, i.e. overloading. Electrical cables are designed to bear a maximum operating voltage and a maximum operating current. However, in actual use, overloading happens when current passing through the electrical cables exceeds the specified maximum value due to the use of electrical extensions for connecting a plurality of electrical appliances to a single electrical socket. Overloading damages the fuses which are installed in the electrical appliances and causes overheating and short circuiting of the electrical cables.”); Ex. 8 at Col. 4:7-10 (“Another problem frequently encountered when power strips are utilized in computer workstation environments, is the overloading of the circuit due to additional equipment being plugged into the power strip.”). In order to address this current overload problem, both the Lee and Chapman patents teach the use of a digital display to alert the end-user that they were

1 close to causing, or had caused, a current overload. *Id.*, Ex. 6 at Col. 4:53-59 (“the electrical
2 socket of the present invention incorporates a monitoring unit that is capable of alerting the user
3 in the event that a preset overload condition has been detected to help avert actual occurrence of
4 an overload.”); Ex. 8 at Col. 4:22-25 (“it can be appreciated that there exists a need for a power
5 strip which allows for the easy determination, at the power strip itself, of the current being drawn
6 by the attached equipment”). The court finds that these disclosures provide an ordinary person in
7 the art a reason to use a digital display in a PDU to address a known problem in the art.

8 Similarly, the digital display disclosed in the Liu patent specifically teaches a person to
9 use the modular digital display in an electrical power distribution device like a power strip or
10 PDU. ECF No. 718, Ex. 7 at Col. 1:40-43 (“it is a primary object of the present invention to
11 provide a power monitoring module for an electrical power source device, such as an electrical
12 power strip or an un-interrupted power supply”). Thus, Liu specifically discloses a direct
13 suggestion to an ordinary person in the art to combine its modular digital display capable of
14 displaying real-time current value into an electric power strip or PDU like the MSVM in order to
15 alert end-users of a pending current overload condition. An express suggestion to combine in a
16 prior art reference is sufficient motivation for an ordinary person skilled in the art to follow the
17 suggested combination and reach a patented design. *See In re Kotzab*, 217 F.3d at 1370.
18 Therefore, the court finds that all three patents provide an apparent reason and motivation to
19 combine a digital display with a PDU and reach STI’s patented design. Accordingly, Claim 15 of
20 STI’s ‘543 patent is obvious under Section 103 as a matter of law.

21 In its opposition, STI contends that an ordinary person in the art would not have had any
22 identifiable reason to use a digital display to address the “current overload problem” in lieu of
23 other design options, like blinking, colored LEDs. *See* ECF No. 723. STI contends that prior-art
24 PDUs from the relevant time frame already reflected industry concerns about current overloads
25 by including design features to address this problem, namely, audible and visual alarms to alert
26 an on-site technician to an overload condition. For example, APC’s MSVM had a single-LED
27 indicator that could turn different colors and alert an end-user of a current overload condition.
28 Further, STI argues that the evidence in this action establishes that during the relevant time

1 period, ordinary electrical engineers and PDU designers, including those at APC, felt that an
2 LED worked appropriately for alerting an end-user to a current overload condition. Similarly,
3 STI contends that other PDU designers were moving away from providing detailed information
4 on the PDU itself, instead relying on information conveyed remotely over a network. Finally,
5 STI argues, and APC concedes, that a digital display was costlier to add to a PDU than an LED
6 display and provided more unique design challenges to fit on a PDU than an LED. Thus, STI
7 contends that the evidence establishes that there were no design incentives for an ordinary person
8 in the art to incorporate a digital display into a PDU to address the current overload problem and,
9 as such, its patented design is not obvious.

10 Initially, the court notes that STI's evidence for why a person of ordinary skill in the art
11 would not use a digital display over an LED, does not overcome the explicit suggestions in the
12 Lee, Liu, and Chapman patents to combine a digital display with an electronic power distribution
13 device like a power strip in order to alert an end-user to a current overload condition. *See, e.g.,*
14 *Enova Tech. Corp.*, 706 Fed.Appx. at 993 (holding that evidence that explains a reason for not
15 combining two prior art references cannot overcome "the express teaching" of the references).
16 Second, the fact that STI's competitors felt that the combination of a digital display with a PDU
17 would not be economically viable at the time is irrelevant to the court's obviousness inquiry. *See,*
18 *e.g., Orthopedic Equipment Co., Inc. v. United States*, 702 F.2d 1005, 1013 (Fed. Cir. 1983)
19 ("[T]he fact that the two disclosed apparatus would not be combined by businessmen for
20 economic reasons is not the same as saying that it could not be done because skilled persons in
21 the art felt that there was some technological incompatibility that prevented their combination.
22 Only the latter fact is telling on the issue of nonobviousness."). Contrary to STI's argument, the
23 issue before the court is not whether a digital display was the preferred way to address the
24 "current overload problem" in a PDU. Rather, the issue is whether one skilled in the art would
25 have had *any* reason to use a digital display to alert an end-user to a current overload condition.
26 *See KSR*, 550 U.S. at 420 (holding that "*any* need or problem known in the field of endeavor at
27 the time of invention and addressed by the patent can provide a reason for combining the
28 elements in the manner claimed.") (emphasis added); *see also In re Kotzab*, 217 F.3d 1365, 1370

1 (Fed. Cir. 2000) (holding that for a patent to be obvious, “there must be some motivation,
2 suggestion or teaching of the desirability of making the specific combination that was made by
3 the applicant.”). And here, based on the express teachings in the Lee, Liu, and Chapman patents,
4 the court finds that it would have been obvious to combine a digital display designed for a power
5 distribution device with a PDU like the MSVM in order to solve what the parties recognize and
6 concede was a well-known problem in the art at the time.

7 STI also raises an argument that because the current overload problem was not the
8 specific problem the inventors of the ‘543 patent were trying to solve with the inclusion of the
9 digital display, Claim 15 of the ‘543 patent is not obvious. Rather, STI contends that its inventors
10 were trying to solve a different problem with the use of a digital display, that of rack
11 maximization. However, STI’s argument is without merit. “[N]either the particular motivation
12 nor the avowed purpose of the patentee controls. What matters is the objective reach of the
13 claim. If the claim extends to what is obvious, it is invalid.” *KSR*, 550 U.S. at 419. Thus, STI’s
14 subjective motivation for combining the digital display has no bearing on the court’s analysis.
15 Further, *any* problem in the art is sufficient for the court to find that the patent is obvious in light
16 of the prior art and not just the problem identified by the patentee. *KSR*, 550 U.S. at 420 (holding
17 that “*any* need or problem known in the field of endeavor at the time of invention and addressed
18 by the patent can provide a reason for combining the elements in the manner claimed.”)
19 (emphasis added). Finally, nothing in STI’s patents supports its argument that the digital display
20 solved the rack maximization problem it now identifies. Instead, the patents link the use of a
21 digital display to the current overload problem discussed in depth in the parties’ briefs. *See, e.g.*,
22 ECF No. 724, Ex. 2 (‘543 patent) at Col. 3:16-22 (“The total input current display **104** can be
23 used to advantage by a technician when installing or troubleshooting a RETMA equipment rack
24 by watching how much current change is observed when each network appliance is plugged in
25 and turned on. Unusually high or low currents can indicate particular kinds of faults to
26 experience technicians.”). Therefore, STI’s argument is insufficient to overcome the court’s
27 finding that Claim 15 of the ‘543 patent, and thereby Claim 15 of the ‘771 patent, are obvious as
28 a matter of law.

G. Secondary Considerations of Non-Obviousness

Before a court can make an ultimate finding that a patented claim is invalid as obvious under Section 103, a court must determine whether there are any “secondary considerations” which support a finding that an otherwise obvious design should be found nonobvious. *KSR*, 550 U.S. at 405. This is because “[s]econdary considerations ‘may often establish that an invention appearing to have been obvious in light of the prior art was not.’” *Crocs, Inc. v. ITC*, 598 F.3d 1294, 1310 (Fed. Cir. 2010) (quoting *Stratoflex, Inc. v. Areoquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983)). Secondary considerations relevant to an obviousness determination include, but are not limited to (1) the commercial success of the patented designs; (2) copying the patented design by others; and (3) the patented design meets a long felt, but unsolved need. *See, e.g., KRS*, 550 U.S. at 405 (commercial success and long felt need); *Akami Techs., Inc. v. Cable & Wireless Servs., Inc.*, 344 F.3d 1186, 1196 (Fed. Cir. 2003) (copying); *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc.*, 617 F.3d 1296, 1304-05 (Fed. Cir. 2010) (affirming non-obviousness based on commercial success, copying by others).

In its opposition, STI argues that substantial evidence of secondary considerations establishes that adding a digital display to a vertical plugstrip was not obvious. *See* ECF No. 723. In particular, STI focuses on (1) the commercial success of its digital display PDUs; (2) subsequent copying of the digital display design by others, including APC; and (3) a long felt, but unsolved need of knowing the exact measured current value being drawn by the PDU to help maximize rack space.

The court has reviewed STI’s evidence of secondary considerations and finds the evidence is insufficient to overcome the court’s strong finding of obviousness as a matter of law. *See Wyers*, 616 F.3d at 1246 (“[W]here the inventions represent[t] no more than the predictable use of prior art elements according to their established functions, the secondary considerations are inadequate to establish nonobviousness as a matter of law.”); *see also Leapfrog Enters., Inc. v. Fisher–Price, Inc.*, 485 F.3d 1157, 1162 (Fed.Cir.2007) (holding that objective considerations of nonobviousness, including substantial evidence of commercial success, praise, and long-felt need, were inadequate to overcome a strong showing the claims at issue were invalid); *DyStar*

1 *Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1371
2 (Fed.Cir.2006) (“The presence of certain secondary considerations of nonobviousness are
3 insufficient as a matter of law to overcome our conclusion that the evidence only supports a legal
4 conclusion that claim 1 would have been obvious.”); *Intercontinental Great Brands LLC v.*
5 *Kellogg North Am. Co.*, 2017 WL 3906853, at *14-19 (Fed. Cir. Sept. 7, 2017) (affirming
6 summary judgment finding of obviousness despite “substantial” and “strong” evidence of
7 secondary considerations). The evidence presented by STI on the various secondary
8 considerations is simply insufficient to overcome the direct teachings of the prior art references
9 and Schneider’s clear and convincing evidence that Claim 15 of the ‘543 and ‘771 patents are
10 obvious. Further, STI has failed to establish the requisite nexus that secondary considerations,
11 including the commercial success of its products, were solely due to the “digital” display aspect
12 of the patented design and not some other design feature or external factor. *See Wyers*, 616 F.3d
13 at 1239 (“Our case law clearly establishes that the patentee must establish a nexus between the
14 evidence of commercial success and the patented invention.”); *In re Huang*, 100 F.3d 135, 140
15 (Fed.Cir.1996) (patentee must show that “the sales were a direct result of the unique
16 characteristics of the claimed invention.”). Moreover, STI’s proffered secondary considerations
17 fail to show that STI’s patented designs are nothing more than the predictable combination of
18 prior art. Therefore, the court finds that STI’s evidence of secondary considerations is
19 insufficient to overcome the court’s findings that Claim 15 of the ‘543 and Claim 15 of the ‘771
20 patent are obvious under 35 U.S.C. § 103 as a matter of law.

21
22
23 IT IS THEREFORE ORDERED that defendant’s renewed motion for summary judgment
24 (ECF No. 718) is GRANTED. Claim 15 of the ‘543 patent and Claim 15 of the ‘771 patent are
25 invalid as obvious.


26 IT IS FURTHER ORDERED that the clerk of court shall enter judgment in favor of
27 defendant Schneider Electric IT Corporation, formerly known as American Power Conversion
28 Corporation, and against plaintiff Server Technology, Inc., on plaintiff’s claim for patent

1 infringement that defendant infringed Claim 15 of the '543 patent and Claim 15 of the '771
2 patent.

3 IT IS FURTHER ORDERED that the parties shall have twenty (20) days after entry of
4 this order to submit a joint status report outlining any remaining issues for the court.

5 IT IS SO ORDERED.

6 DATED this 30th day of March, 2018.

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8 LARRY R. HICKS
UNITED STATES DISTRICT JUDGE
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